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REAL ESTATE

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OUTLOOK

July 1989

A Monthly Forecast for the Economy and Real Estate

FORECAST SUMMARY

- The U.S. Department of Commerce released its second revision to first quarter real GNP growth, nudging the estimate 0.1 percent higher to 4.4 percent. Without the drought-related adjustment to farm output of 2.5 percentage points, real non-farm GNP advanced at a sluggish 1.9 percent annual rate.
- Despite a fall in the unemployment rate in May from 5.3 percent to 5.2 percent, non-farm businesses added the smallest monthly total of new employees in over 3 years, with payrolls expanding by a mere 101,000 employees. This decline was centered mainly in the goods-producing industries where total employment dropped by 33,000 employees.
- A rally in the bond market brought substantial relief to the mortgage market, with fixed rate mortgages falling below 10 percent at many lending institutions for the first time in fifteen months.
- Housing starts of privately owned homes fell for the fourth consecutive month in May to a seasonally adjusted annual rate of 1.31 million units, the lowest rate in seven years. The decline in starts was brought on primarily by a decline in the construction of single-family homes, which slid 4.6 percent to an annual rate of 980 thousand units.
- After rising 9.1 percent in April, sales of new single-family homes rose an additional 2.7 percent in May to a seasonally adjusted annual rate of 613 thousand units. Despite the recent pickup, sales of new homes are still well below the rate of 1988.
- Sales of existing single-family homes slid 5.9 percent in May to a seasonally adjusted annual rate of 3.21 million units, putting sales 11.3 percent below the 3.62 million unit annual rate of a year ago.
- The median sales price of an existing single-family home inched up 0.2 percent in May to $93,100, marking a modest 3.9 percent increase over the $89,600 median price of a year ago. The median price of a new single-family home jumped 7.7 percent over the April median price, and 13.6 percent above that of a year ago, to $125,000 in May.

IN THIS ISSUE

Forecasting & Policy Analysis Division
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The Hare-Brained Economy
Economic Commentary

by
John A. Tuccillo
Chief Economist
and Senior Vice President
Real Estate Finance

The icons are falling. First, the University of Kentucky basketball program is closed down for three years. Then, Jim Wright is driven from the Congress in a process most reminiscent of a bear-baiting. And, to show that events (good or bad -- you make the call) happen in threes, Barry Switzer resigns from the throne of Oklahoma University. In part, one wonders whether the system of reward and punishment used in these cases should be consistent. For example, if a Congressman or Senator is proven to have committed an offense twice, should the district or state represented revert to territorial status (analogous to the NCAA "death penalty" of closing down an athletic program)? But, over and above that concern, these events provide an object lesson in how the U.S. economy has changed and continues to change.

The common denominator in these three episodes is money. In short, it became economically feasible to do the morally unfeasible--breaking the essential rules of conduct--because big bucks beckoned. It was not too long ago that Speakers of the House (even people like Sam Rayburn) or football coaches (like Pat O'Brien...er, Knute Rockne) labored in obscurity. But the growing centrality of the Federal government in all our lives has opened up cash channels for ordinary legislators. And the amount of attention we pay to television has made college sports a big-time business. So the misfortunes of the great, while primarily their own fault, were set up by a shift in economic values and incentives.

Even in business, the prominent figures (I dare not use the term "heroes") no longer make cars or steel or produce petroleum products. Today Ford, Carnegie and Rockefeller are Donald Trump and Carl Icahn, guys who make deals, not sedans. And while Lee Iaccoca may be put up as an exception, Chrysler makes more of its profit from financing cars than it does from making them.

All this is the product of the incentive systems permeating our society and our economy. Reward structures have become increasingly short-term in focus, to the benefit of consumption activities at the expense of building for the future. Government service is no longer viewed as a long-term career, as it is in Japan or Europe, but a two-year steppingstone to big consulting contracts. Moreover, even those business activities that do have the appearance of long-term arrangements are less value-adding and more on the order of rearranging the deck chairs. The common mode (see Lorenzo, Frank) of business dealing these days is to acquire through debt financing and then sell off assets to redeem debt. And while this decentralization of operations in some cases can increase efficiency, its real end is the making of a quick and substantial profit.

For consumers, the changes in economic life are best typified by the emphasis on short-term gratification. We want what we want when we want it, and if achieving that requires spending more than we earn, so be it. The patience to build for the future is weaker, the desire to get it now stronger. I think we in real estate are beginning to see this take hold quite strongly. Rising house prices combined with a disappearing savings discipline are persuading young families that it's more reasonable to spend $250 for a new VCR than to put that money toward a down payment. Later this year, we'll see how deeply the mind set has become: falling rates are likely to trigger only a modest rally in residential numbers.

The incentive system has its dark side as well. Part of the reason why drug trafficking is such an enormous and intractable problem is economics. Our desires for instant gratification provide a steady consumption demand. On the other side, the lure of quick money now generates a steady flow of workers to the drug industry. In a more forward-looking economy, the big bucks would seem far less attractive because they would be balanced by the probability of a short life span. But longevity holds less and less value in our system.

All this puts us at a substantial disadvantage relative to our industrial rivals. The Japanese are firmly focussed on the long term and are building steadily toward it; the coming European unification will revitalize those economies and, in doing so, stimulate investment. To a real extent, we are courting the fate of Aesop's hare, who having achieved much, got lost in his own excellence and eventually lost it all.

Outlook for the Economy and Real Estate

THE ECONOMIC OUTLOOK

The U.S. Department of Commerce released its second revision to real GNP growth, nudging the estimate 0.1 percent higher to 4.4 percent. Without the drought-related adjustment to farm output of 2.5 percentage points, real non-farm GNP advanced at a sluggish 1.9 percent annual rate. The Commerce Department made a more substantial revision to its GNP price index, which monitors price changes on a fixed basket of goods and services. Originally estimated at 5.0 percent, the rise in the price index now stands at a more modest 4.6 percent in the first quarter. However, prices in the first quarter were still climbing faster than the 4.2 percent pace in the final quarter of 1988. The first quarter GNP revision was released amidst a slew of monthly reports on the state of the economy in May which suggest that a slowdown is underway: a large drop in durable goods orders, sluggish retail sales and consumer spending, and lackluster employment growth. The May data further illusrates that, despite an uptick in economic activity during April, the pace of growth has slowed so far in 1989. For all of 1989, real GNP growth is forecast to reach 2.8 percent, down from 3.9 percent in 1988.

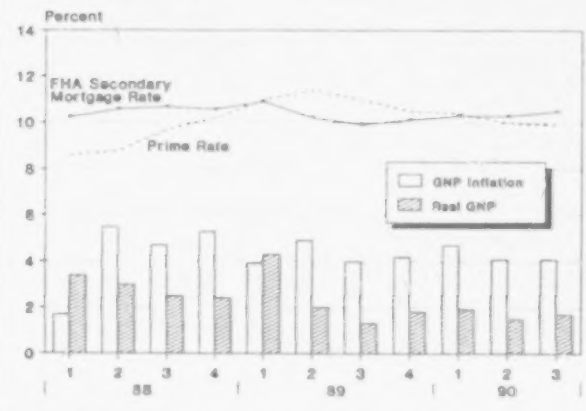
Employment Growth is on the Decline

Despite a fall in the unemployment rate in May from 5.3 percent to 5.2 percent, non-farm businesses added the smallest monthly total of new employees in over 3 years, with payrolls expanding by a mere 101,000 employees. This decline was centered mainly in the goods producing industries where total employment dropped by 33,000 employees. While a low unemployment rate generally signals economic health, slow employment growth can lead to slower output growth, assuming no significant increase in productivity. Mixed reviews followed the release of the employment report. as most analysts had expected employment growth to be almost twice as strong. Some sang the now familiar song that the Federal Reserve has tightened credit too far drawing a recession dangerously close. On a more optimistic note, some analysts cited the report as evidence that the Fed has successfully engineered a "soft-landing"-slower economic growth with less inflationary pressures. If so, the Federal Reserve may now be able to loosen credit even further.

Manufacturing Activity on the Decline

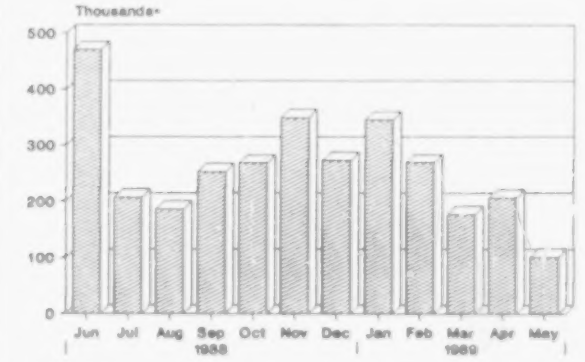
Further signs of weakness came from a drop in the Purchasing Managers' Index, collected by the National Association of Purchasing Managers. May data for the index showed an overall decline in manufacturing for the first time in three years. The index measures manufacturing performance based on a survey which tracks new orders, production, vendor deliveries, inventory and employment. A number above 50% generally indicates economic growth while below 50% shows just the opposite; the May report showed the index falling to 49.7%. However, despite the decline, there appeared to be some optimism in the report, especially for those who are hoping for a "soft-landing." Export orders remained relatively strong despite a higher dollar, vendor deliveries picked up, and commodities reported in short supply dropped to their lowest level in 30 months, indicating that bottlenecks may be subsiding.

GRAPH 1: THE ECONOMIC OUTLOOK



E NAR estimates

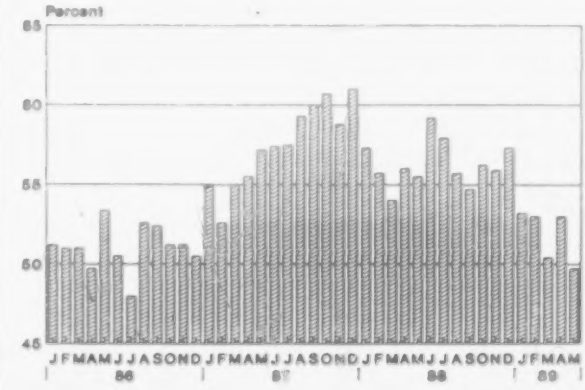
GRAPH 2: EMPLOYMENT GROWTH SLOWS



*Seasonally adjusted increase in non-farm employment.

Source: Bureau of Labor Statistics

GRAPH 3: SURVEY OF PURCHASING MANAGERS SHOWS DECLINE IN MANUFACTURING ACTIVITY



Source: The Bureau of Economic Analysis.

Rising Inflation Is Met With Moderate Concern

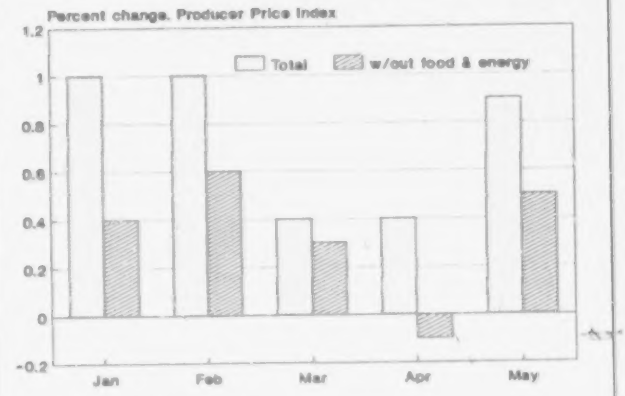
For over a year, reports of monthly price rises in excess of 0.4 percent have engendered a great deal of inflationary concerns. Until recently the Fed has fought to control these increase through a tight monetary policy. Only over the last several weeks has the Fed begun to relax its tight grip on the money supply. As evidence that both the Fed and financial market players sense cooler days ahead on the inflation front, there was little reaction to the rather sizable increase in the May producer price index (0.9%) and the consumer price index (0.7%). Given that a decline in inflation generally lags slower economic growth, the consensus is that price pressures will recede in coming months, and further increases in interest rates would only risk a recession. In addition, large jumps in the cost of food and energy have tended to exaggerate the rate of inflation throughout 1989. As Graph 5 illustrates, without these two components the rate of inflation for the past 5 months has been considerably slower. Oil prices, which have risen 50 percent in 1989, have been expected to ease in the second half of the year, while food prices stabilize. However, in the past month OPEC has been successful in securing pledges of lower monthly production from both Kuwait and the United Arab Emirates which could reduce oil production this summer by more than one million barrels a day, resulting in a continued firming in oil prices. If this is the case, expectations of substantially lower rates of inflation in the second half of 1989 may be a bit premature.

MONETARY POLICY AND INTEREST RATES

As both the Federal Reserve and financial markets appear to be assuaged by the signs of slower economic growth and the hopes of lower energy costs, interest rates have continued to slide. The move towards lower interest rates during July began with a half percentage point fall in the prime rate, the first decline in over a year. The prime rate has a strong bearing on a variety of consumer and business loans, and many banks use this as a base when calculating adjustable-rate home-equity loans. Meanwhile, encouraged by signs of a trend towards a looser credit policy, long-term rates have continued to fall, as investors, both domestic and foreign, showed considerable interest in the bond market. The result has been almost a 70 basis point drop in the rate on a 30-year Treasury bond in the past month. We expect that the bond rate, now at 8.3 percent, has probably hit its low point for the year, rising slightly in the later months to around 8.8 percent.

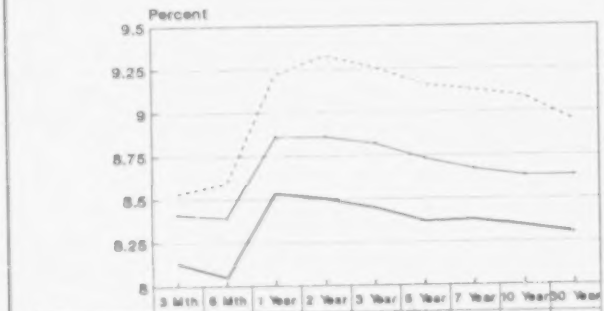
The recent rally in the bond market has offered substantial relief to the mortgage market, with fixed rate mortgages falling below 10 percent at many lending institutions for the first time in fifteen months. During the first two weeks of June, some lending institutions dropped their rates by as much as a full percentage point. As a result, lenders across the country have reported a step up in lending activity, as homebuyers are drawn into the market by the attractive lower rates and homeowners rush to refinance mainly adjustable rate loans, some of which have gone higher than 13 percent in the past few months. Given that lenders are becoming far more reluctant to offer the heavily discounted ARMs which became popular last year, the decline in fixed rate mortgages couldn't have come at a better time. Moreover, as high short-term rates have narrowed the spread between adjustable and fixed rates in recent months, homebuyers are showing a new-found preference towards fixed rate mortgages.

GRAPH 4: RISING ENERGY COSTS PUSH PRODUCER PRICES HIGHER



Source: The Bureau of Labor Statistics.

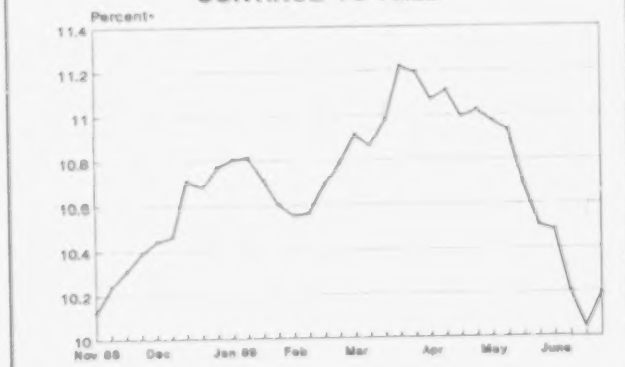
GRAPH 5: THE YIELD CURVE



	3 Mth	6 Mth	1 Year	2 Year	3 Year	5 Year	7 Year	10 Year	30 Year
Apr 25	8.53	8.59	9.22	9.33	9.26	9.16	9.13	9.09	8.95
May 26	8.41	8.39	8.86	8.86	8.82	8.73	8.67	8.63	8.63
June 23	8.13	8.05	8.53	8.5	8.45	8.37	8.38	8.34	8.3

Source: The Federal Reserve Board.

GRAPH 6: FIXED-RATE MORTGAGES CONTINUE TO FALL



*Contract interest rates on commitments for fixed-rate first mortgages.

Source: The Federal Reserve Board.

HOUSING STARTS

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

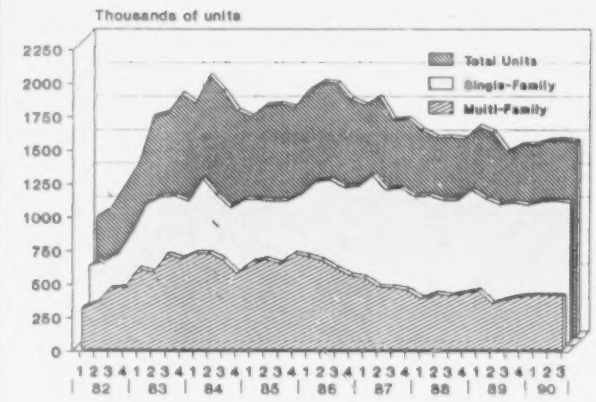
		Total	S-F	2-4	5 and up
May	1989	1331	980	46	285
Apr	1989	1339	1027	64	248
Mar	1989	1409	981	50	378
Feb	1989	1465	1029	62	374
Jan	1989	1678	1199	66	413
May	1988	1392	1001	53	338
May 1989 Changes From:					
Apr	1989	-2.1%	4.6%	-28.1%	14.9%
May	1988	-5.8%	-2.1%	-13.2%	-15.7%

REGIONAL DATA

		Northeast	Midwest	South	West
May	1989	186	245	516	364
Apr	1989	206	269	525	339
Mar	1989	160	308	552	389
Feb	1989	224	273	572	396
Jan	1989	293	313	642	430
May	1988	202	267	562	361
May 1989 Changes From:					
Apr	1989	-9.7%	-8.9%	-1.7%	7.4%
May	1988	-7.9%	-8.2%	-8.2%	0.8%

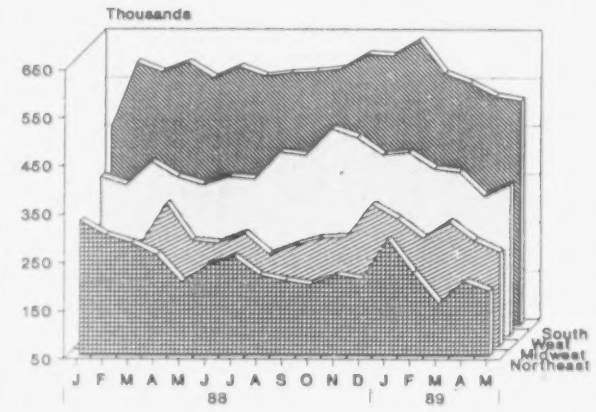
Source: Bureau of the Census; Construction Reports, Series C20

GRAPH 7: HOUSING STARTS



Source: The Bureau of Census; E NAR Estimates

GRAPH 8: HOUSING STARTS BY REGION



Source: The Bureau of Census

Housing starts of privately owned homes fell for the fourth consecutive month in May to a seasonally adjusted annual rate of 1.31 million units, the lowest rate in seven years. The decline in starts was brought on primarily by a decline in the construction of single-family homes, which slid 4.6 percent to an annual rate of 980 thousand units, dropping the rate of single-family starts below 1 million units for the second time this year. Starts of structures with 5 or more units staged a comeback in May, climbing 14.9 percent to 285 thousand units, after falling 34.4 percent in April. Given the weakness in housing starts despite some easing in interest rates during May, it appears that builders are waiting for concrete signs of increased homebuying activity and a clearer picture of the economy's direction before they begin to step up construction. While we are not forecasting a surge in housing activity at any time in the near future, we do expect a moderate pickup in housing construction during the summer and early fall, with the second quarter most likely being the low point for housing construction in 1989.

With the exception of the West, every region suffered a set back in construction during May. Starts took their greatest tumble in the Northeast, falling 9.7 percent to a seasonally adjusted annual rate of 186 thousand units. In both the Midwest and the South, starts were down to their lowest rates of 1989, at 245 thousand units and 516 thousand units, respectively. In the West sales rose 7.4 percent to an annual rate of 364 thousand units, and were about even with the 361 thousand unit annual rate of starts in May of 1988.

NEW HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

May 1989	613	Oct 1988	718
Apr 1989	597	Sep 1988	691
Mar 1989	547	Aug 1988	555
Feb 1989	621	Jul 1988	691
Jan 1989	700	Jun 1988	712
Dec 1988	669	May 1988	701
Nov 1988	650		

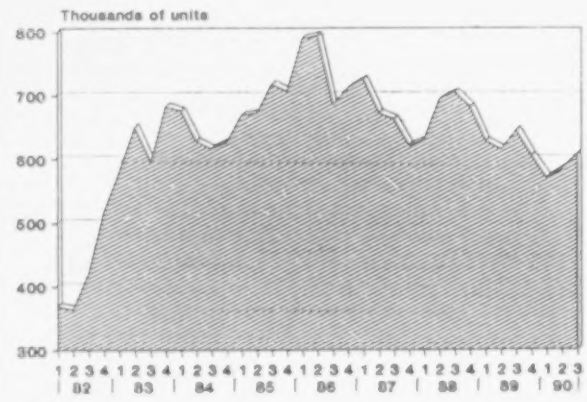
May 1989 Changes From:		Annual Totals:	
Apr 1989	2.7%	1987	671
May 1988	-9.7%	1988	677

REGIONAL DATA

	Northeast	Midwest	South	West
May 1989	98	93	234	197
Apr 1989	87	98	228	183
Mar 1989	110	98	196	143
Feb 1989	84	103	236	198
Jan 1989	121	106	265	207
Dec 1989	109	94	263	204
May 1988	101	93	290	194
1988	102	97	275	202
1987	134	102	288	140
May 1989 Changes From:				
Apr 1989	12.6%	-5.1%	2.6%	7.7%
May 1988	-3.0%	0.0%	-19.3%	1.5%

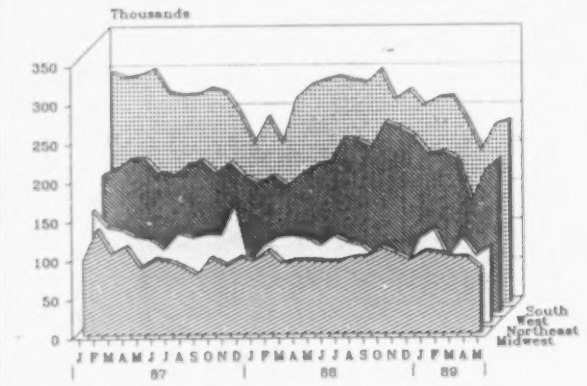
Source: Bureau of the Census, Construction Reports, Series C25

GRAPH 9: NEW HOME SALES



Source: The Bureau of Census; E NAR Estimates

GRAPH 10: NEW HOME SALES BY REGION



Source: The Bureau of Census

After rising 9.1 percent in April, sales of new single-family homes rose an additional 2.7 percent in May to a seasonally adjusted annual rate of 613 thousand units. The two month climb followed a 21.9 percent drop from January, when sales were at an annual rate of 700 thousand units, to March, when sales skidded to 547 thousand units. While most of the sales increase was likely a market adjustment to extraordinarily low rates of sales during February and March, lower interest rates towards the end of May probably drew additional homebuyers into the market. Despite the recent pickup, sales of new homes are still well below the rate of 1988: the May sales rate was 9.7 percent below the 679 thousand unit annual rate of a year ago, and total sales in the opening five months of 1989 are 7.0 percent below the corresponding months of last year (277,000 units compared with 298,000).

The Midwest was the only region to experience a decline in new home sales during May, where sales fell 5.1 percent to a seasonally adjusted annual rate of 93 thousand units. With only few exceptions, sales have been relatively flat in the Midwest for over a year, fluctuating in a narrow range of 93 to 99 thousand units. As for the other three regions, sales have been far more sporadic. Sales were up 12.6 percent in the Northeast, following a 20.9 percent decline in April. In the South sales rose 2.6 percent to a seasonally adjusted annual rate of 234 thousand units. And in the West, sales in May rose 7.7 percent to an annual rate of 197 thousand units.

EXISTING SINGLE-FAMILY HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

May 1989	3210	Oct 1988	3680
Apr 1989	3400	Sep 1988	3640
Mar 1989	3400	Aug 1988	3690
Feb 1989	3480	Jul 1988	3650
Jan 1989	3550	Jun 1988	3800
Dec 1988	3920	May 1988	3620
Nov 1988	3710		

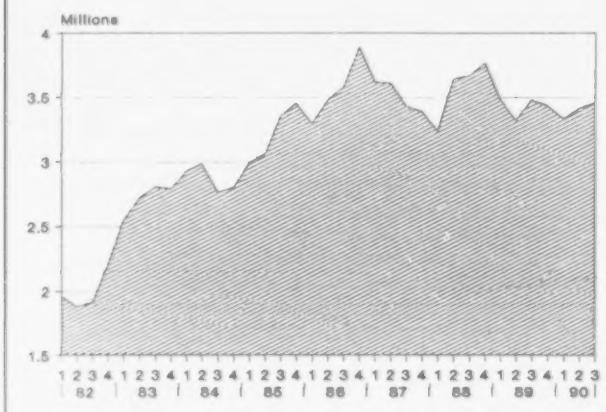
May 1989 Changes From:		Annual Totals:	
Apr 1989	-5.9%	1988	3594
May 1988	-11.3%	1987	3526

REGIONAL DATA

	Northeast	Midwest	South	West
May 1989	590	800	1230	570
Apr 1989	610	890	1280	620
Mar 1989	570	870	1270	670
Feb 1989	600	920	1310	640
Jan 1989	710	930	1310	630
Dec 1988	700	1010	1500	700
Nov 1988	680	940	1410	680
May 1989	690	910	1370	640
1988	673	929	1350	642
1987	685	959	1282	600
May 1989 Changes From:				
Apr 1989	-3.3%	-10.1%	-3.9%	-8.0%
May 1988	-14.5%	-12.1%	-10.2%	-10.9%

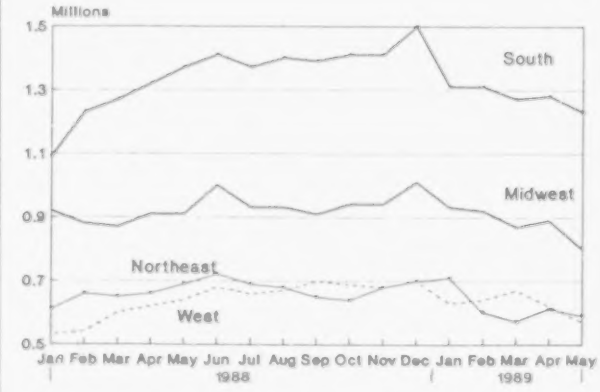
Source: NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division

GRAPH 11: EXISTING HOME SALES



Source: The Bureau of Census; E NAR Estimates

GRAPH 12: EXISTING HOME SALES BY REGION



Source: NAR Economics and Research; E NAR Estimates

Sales of existing single-family homes slid 5.9 percent in May to a seasonally adjusted annual rate of 3.21 million units, putting sales 11.3 percent below the 3.62 million unit annual rate of a year ago. Except for a slight pause in April, the pace of existing home sales has fallen in every month in 1989, with existing home sales now 18.1 percent below their 1989 high of 3.92 million units set in December. Homebuyers have shown considerable reluctance to venture back into the housing market despite falling interest rates. As with builders, many would-be homebuyers are waiting for clear signs of where the economy is headed before purchasing a home. In addition, despite falling interest rates many first-time homebuyers remain locked out of the housing market; often unable to afford the large downpayments necessary as a result of years of steady price increases. The affordability crisis facing many first-time homebuyers is also retarding the ability of many existing homeowners to move up to larger homes.

On a regional basis, existing home sales fell across the board, with the greatest drop occurring in the Midwest. Sales fell 10.1 percent in that region to a seasonally adjusted annual rate of 800 thousand units. In the West, sales fell for the third consecutive month, dropping 8.0 percent to an annual rate of 570 thousand units. In the South, sales were down by 3.9 percent in May at an annual rate of 1.23 million units, the lowest rate in more than seven years. The Northeast experienced the most moderate monthly decline of 3.3 percent. However, at an annual rate of 590 thousand units, sales are now 14.5 percent below the Northeast's annual rate of a year ago.

SINGLE-FAMILY HOME PRICES

	Median		Average	
	Existing	New	Existing	New
May 1989	$93,100	$125,000	$117,600	$158,800
Apr 1989	92,900	116,000	118,000	145,900
Mar 1989	92,000	124,000	116,100	148,400
Feb 1989	91,900	118,000	117,800	145,300
Jan 1989	89,700	113,000	113,000	138,600
May 1988	$89,600	$110,000	$113,300	$133,500
1988	89,300	112,500	112,800	138,200
1987	85,600	104,500	106,300	127,200
May 1989 Changes From:				
Apr 1989	0.2%	7.7%	-0.3%	8.8%
May 1988	3.9%	13.6%	3.8%	19.0%

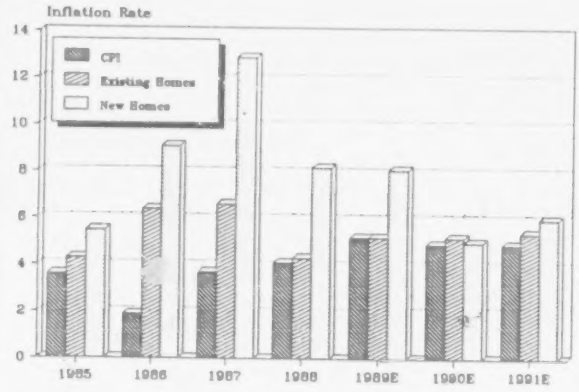
REGIONAL DATA

MEDIAN SALES PRICE OF AN EXISTING HOME

	Northeast	Midwest	South	West
May 1989	$147,500	$69,600	$85,600	$136,300
Apr 1989	144,000	70,400	85,200	142,700
Mar 1989	143,600	69,900	84,000	138,000
Feb 1989	142,600	69,900	86,700	127,800
Jan 1989	143,800	67,800	82,400	130,700
May 1988	$144,100	$69,000	$84,200	$123,100
1988	143,000	68,400	82,200	124,900
1987	133,300	66,000	80,400	113,200
May 1989 Changes From:				
Apr 1989	2.4%	-1.1%	0.5%	-4.5%
May 1988	2.3%	0.8%	1.6%	10.7%

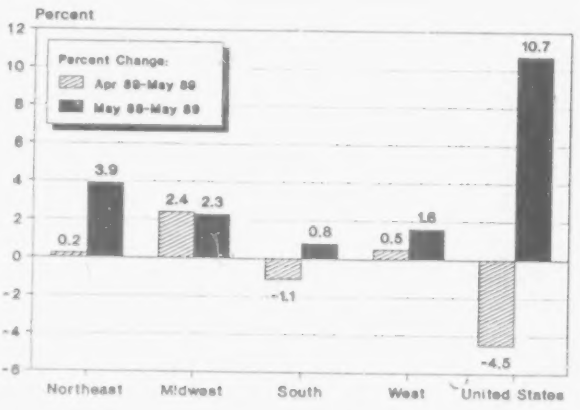
Source: NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division

GRAPH 13: HOME PRICES



Source: The Bureau of Census; E NAR Estimates

GRAPH 14: HOME PRICES BY REGION



Source: NAR Economics and Research; E NAR Estimates

The median sales price of an existing single-family home inched up 0.2 percent in May to $93,100, marking a modest 3.9 percent increase over the $89,600 median price of a year ago. Meanwhile, the median price of a new single-family home jumped 7.7 percent over the April median price, and 13.6 percent above that of a year ago, to $125,000 in May, following a 6.5 percent decline during April. The decline in the median price of a new home during April was due in part to a shift in sales activity from higher priced regions to generally lower priced areas. Exactly the opposite was true for the steep increase in new home prices during May. New home sales in the higher priced markets of the Northeast and West were up considerably when compared with those in the lower priced regions of the South and Midwest, thus boosting the national median price of new homes.

Regionally, the median price of an existing single-family home was up 2.4 percent in the Northeast, and 0.5 percent in the South, at $147,500 and $85,600, respectively. In the West, the median price declined 4.5 percent to $136,300, while the price in the Midwest dropped 1.1 percent to $69,600. Regional price appreciation for the twelve months ending in May was modest, with only the West experiencing any substantial gain, rising 10.7 percent. In the other three regions, the median price of an existing home appreciated by 2.3 percent in the Northeast, 0.8 percent in the Midwest, and 1.6 percent in the South.

Sean A. Burns, Director of Forecasting
Beth M. Maerz, Research Associate

INFLATIONARY DISTORTIONS AND REAL ESTATE TAX PROVISIONS

Recent Rumors concerning possible changes in the capital gains tax and expectations about rising prices have revived the issue of indexation of taxes for inflation. It has been reported that Representative Dan Rostenkowski (D. Ill.), Chairman of the House Ways and Means Committee, is considering, among other things, the indexation of the capital gains base to account for inflation.[1] The existence of inflation, it is argued, creates a problem for the equitable taxation of income because it causes fictitious income to be taxed. Although there is widespread acknowledgement that the taxation of income from capital imposes taxes on income that do not reflect increases in real purchasing power, there is still some confusion as to why income from capital should be treated differently from income from labor.[2] [3] This paper examines the distortions caused by the interaction of inflation and real estate tax provisions and attempts to clarify the distinction between income from capital and income from labor.

Specifically, inflation has distortionary effects on at least three real estate tax provisions. First, capital gains taxes are affected because real estate capital gains include inflationary gains. Second, during inflationary periods, depreciation allowances based on historical costs are generally not adequate to allow for the tax-free recovery of investments. Finally, the mortgage interest payments allowed to be taken as a deduction includes an inflationary component. This paper is the first of a three part series which investigates the consequences of inflation for each of these real estate tax provisions. This part deals with the interaction of the capital gains tax and inflation.

CAPITAL GAINS TAX

Inflation introduces a bias in the taxation of capital gains because part of the gain does not represent any increase in real purchasing power. Take, for example, an asset purchased for $100. If the inflation rate is 10 percent and the asset rises in value by the inflation rate, then the asset will have a market value of $110 at year end, the $10 of nominal capital gain being taxable. However, because inflation has increased the general price level by 10 percent, the $110 received upon sale cannot purchase any more goods and services than could the $100 the asset was purchased for. Thus, the $10 of capital gains which is subject to taxation is purely fictitious income reflecting no real gain in purchasing power.

Why should capital gains be treated any differently than is wage income? After all, wages are subject to inflationary pressures as well. Table 1 illustrates this difference with a simple example. Suppose a household receives $30,000 in income. In the absence of inflation, assuming a flat tax of 20 percent, the household would pay a tax of $6,000. Now consider the case where inflation increases all prices and incomes by 5 percent. Wage income rises to $31,500 and the tax due is now $6,300. Although the household pays a greater nominal value in taxes it also receives a higher nominal wage income so that it is no better or worse off than before. Its after tax income of $25,200 is capable of purchasing the same amount of goods and services as the $24,000 it would have received in the absence of inflation.[4] Similarly, the $6,300 the government receives in the form of taxes can purchase an equivalent amount of goods and services as the $6,000 it would have received in the absence of inflation. Thus, both the household and government are no better or worse off due to inflation.

Unfortunately, the capital gains tax is not neutral with respect to the income tax, as Table 1 indicates. Suppose a household holds an asset which it purchased for $10,000 and which appreciates at a real rate of 10 percent per year. If the household sells the asset after holding it for a year[5], it would receive $11,000 and pay a tax of $200 on the capital gain of $1,000. Thus, the household would end up with $10,800 after taxes from the sale of the asset. Now, suppose that inflation increases all prices by 5 percent. The asset would now yield $11,550 upon sale in a year.[6] The household would pay a tax of $310 on $1,550 of capital gains. The household is now worse off because it receives only $11,240 after tax from the sale of its asset. Although this is more than the after tax price of $10,800 the household would have received in the absence of the tax, it is equivalent to only $10,705 in real purchasing power. Thus, the household has lost some purchasing power due to the interaction of inflation and the capital gains tax. What happens to government revenue? The tax paid on the capital gain is equivalent to $295 in real revenue. Thus, government has gained from the distortionary effects of inflation.

Inflation Neutral Capital Gains Tax

How can the capital gains tax provision be made neutral in the presence of inflation? Economists have long advocated use of indexation to correct for inflationary biases. The indexation plan would work as follows. The capital gains base (the purchase price of $10,000) would be indexed for inflation (multiplied by 1.05 - the inflation index) to reflect current market prices. The indexed base of $10,500 reflects the current market price of the asset before real appreciation. This base is subtracted from the actual sales price of the asset of $11,550. The resulting value of $1,050 is used to derive the tax on capital gains of $210. Households would receive an amount of $11,340 after taxes from the sale of the asset, which is equivalent to $10,800 in real value. The government would receive $210 in taxes which is equivalent to $200 in real value. Thus, indexation leaves the household in the same financial situation as in the no-inflation case!

Table 1
Income, Inflation, and Taxes

Wage Income	Zero Inflation	Five Percent Inflation
(1) Wages	30,000	31,500
(2) Tax @ 20%	6,000	6,300
(3) After Tax Income	24,000	25,200
(4) Real Value of Tax	6,000	6,000
(5) Real Value of After Tax Income	24,000	24,000

Capital Gains Asset Appreciates at 10% Real Rate	Zero Inflation	Five Percent Inflation	Five Percent Inflation With Indexation
(1) Selling Price	11,000	11,550	11,550
(2) Purchase Price	10,000	10,000	10,000
(3) Indexed Captial Gains Base	NA	NA	10,500
(4) Taxable Capital	1,000	1,550	1,050
(5) Tax on Cap. Gain @20%	200	310	210
(6) After Tax Price	10,800	11,240	11,340
(7) Real Value of Tax	200	295	200
(8) Real After Tax Asset Value	10,800	10,705	10,800

Other Aspects of the Capital Gains Tax

The previous analysis ignored the current tax advantages arising from the taxation of capital gains on realization rather than accrual. Since the tax payment can be deferred until the asset is sold, the deferral is like an interest-free loan on the tax payment. This feature of the current tax code alleviates some of the distortions caused by inflation. Table 2 illustrates this point. The fourth column displays the tax that would be due for different holding periods on an asset purchased for $10,000 appreciating at a real rate of 4 percent in an environment where inflation is increasing prices at 5 percent annually. The combination of inflation and deferral has offsetting effects for the capital gains tax. Moreover, the distortions caused by inflation declines as the holding period increases because a greater amount of tax payment is being deferred. The fourth column in Table 2 calculates the tax that would be due if there were inflation indexation and no deferral. A comparison of the tax liabilities under the current system and the "ideal" system shows that as the holding period increases, the tax advantage due to deferral tends to offsets the additional tax due to inflation. For example, if the asset is held for 15 years, the tax liability under the current system would be $7,683 while the tax liability under the "ideal" system would be approximately the same at $7,698. If the asset were held for a longer period of time, the current system would produce a lower tax liability than the "ideal" system.

The current tax system which allows the capital gains tax to be deferred has both pros and cons. An advantage to taxation upon realization rather than accrual is that it does not impose liquidity problems on the asset holding taxpayer. Another advantage is that the valuation of asset value is not a problem if the capital gains is taxed at realization. If the tax were imposed upon accrual, the asset would have to be valued annually. Although this would not be a problem for stocks, it may be a costly and inaccurate process for physical assets such as real estate. A disadvantage of deferral is that it provides an incentive for taxpayers to postpone realizations since it is like borrowing money at no cost from the government.

Recent proposals that have been raised with respect to the capital gains tax such as the tax rate preference and inflation indexation do not include any discussions on the issue of deferral. Thus, it is possible that deferral is a deliberate policy taken by the government because of the advantages of taxing capital gains upon realization. The last two columns of Table 2 displays the tax liabilities for various holding periods under a maximum preferred capital gains rate of 15 percent and under inflation indexation at the maximum ordinary rate. A comparison of these two methods to the "ideal" method (in column 5) illustrates that longer held assets fare better than shorter held assets. An additional observation that can be made from the comparison of the two proposals is that the proposal for a capital gains tax cut becomes more attractive relative to the proposal to index the basis for inflation if the asset is held longer.

CONCLUSION

The presence of inflation biases the capital gains tax in favor of government and against taxpayers. Inflation results in higher real and nominal capital gains tax revenue being collected by the government, while reducing the real after tax proceeds from the sale of the asset going to the taxpayer. This distortion is larger for higher inflation rates and affects assets held for a shorter period of time more significantly due to the nature of the current capital gains tax provision.

by
T. Emi Miyake
Director of Tax Research
Forecasting and Policy Analysis Division

1.E.g., Washington Post, June 14, 1989.

2.We shall abstract from the notion of income from "Human capital" to keep the analysis simple.

3.There is some disagreement concerning the justification for differential treatment of capital gains. Some economists argue that all flows of income should be treated the same. They argue that the comparison of the effects of taxation and inflation on the stock of capital to the effects on the flow of income is not relevant.

4. The real value of income is calculated by deflating the nominal value by the inflation factor, that is $25,200/1.05 = $24,000.

5.We postpone the consequences of the ability to defer the capital gains tax to concentrate on the effect of inflation alone. Keeping the holding period to a period of one year and the use of non-compounding inflation and appreciation rates allow us to avoid discussion of the deferral provision.

6.Calculated as $10,000(1+.10)(1+.05) = $11,550, where the real appreciation rate is 10 percent and the inflation rate is 5 percent.

Table 2
Alternative Taxes on Capital Gains

Assumptions:

Inflation = 5.00%
Real Appreciation = 4.00%
Nominal Appreciation = 9.20%

			Theoretical Ideal:	Current Law:	Bush Proposal:	Indexation For Inflation:
Holding Period	Nominal Price	Realize Gain	Current Value of Tax with Indexation and no Deferral	Tax on Realized Gain @28%	Tax on Nominal Realized Gain @15%	Tax on Realized Gain with Deferral and Indexation @28%
0	10,000					
1	10,920	920	118	258	138	118
2	11,925	1,925	263	539	289	252
3	13,022	3,022	440	846	453	405
4	14,220	4,220	654	1,182	633	578
5	15,528	5,528	910	1,548	829	774
6	16,956	6,956	1,215	1,948	1,043	996
7	18,516	8,516	1,576	2,385	1,277	1,245
8	20,220	10,220	2,001	2,862	1,533	1,525
9	22,080	12,080	2,499	3,382	1,812	1,839
10	24,112	14,112	3,080	3,951	2,117	2,190
11	26,330	16,330	3,757	4,572	2,449	2,583
12	28,752	18,752	4,541	5,251	2,813	3,022
13	31,397	21,397	5,448	5,991	3,210	3,511
14	34,286	24,286	6,494	6,800	3,643	4,056
15	37,440	27,440	7,698	7,683	4,116	4,662

U.S. ECONOMIC OUTLOOK

JULY 1989

	QUARTERS								YEARS				
	ACTUAL		FORECAST						ACTUAL		FORECAST		
	88.4	89.1	89.2	89.3	89.4	90.1	90.2	90.3	1987	1988	1989	1990	1991
AGGREGATE ECONOMY													
Gross National Product (billions of dollars)	5000	5099	5188	5257	5336	5424	5499	5578	4527	4864	5220	5541	5908
% Change	7.6	8.2	7.2	5.4	6.2	6.8	5.7	5.9	6.6	7.5	7.3	6.1	6.6
% Change (w/out inflation)	2.4	4.4	2.0	1.3	1.8	1.9	1.5	1.7	3.4	3.9	2.7	1.7	2.3
Consumer Price Inflation (CPI)	4.4	5.4	6.7	4.2	4.8	5.0	4.8	4.8	3.7	4.1	5.2	4.9	4.9
GNP Inflation (GNP Deflator)	5.3	3.6	4.9	4.0	4.2	4.7	4.1	4.1	3.3	3.4	4.5	4.3	4.2
Unemployment Rate - Civilian	5.3	5.2	5.2	5.2	5.4	5.4	5.5	5.6	6.2	5.5	5.2	5.5	5.4
Civilian Employment-Household Basis (millions)	115.8	116.9	117.2	117.6	117.9	118.1	118.4	118.7	112.4	115.0	117.4	118.5	120.1
Percent change	2.2	3.7	1.1	1.3	0.9	0.9	0.9	0.8	2.6	2.3	2.1	1.0	1.3
Index of Industrial Production	139.9	140.6	141.6	142.0	143.1	143.9	144.6	145.2	129.8	137.2	141.8	144.8	148.1
Manufacturing Capacity Utilization	84.4	84.3	84.1	83.5	83.6	83.6	83.4	83.2	81.0	83.6	83.9	83.3	83.0
Domestic Auto Sales	7.5	6.9	7.2	7.1	7.0	7.0	7.0	7.0	7.1	7.5	7.1	7.0	7.1
Federal Tax Receipts (NIPA) as % of GNP	19.8	20.4	20.5	20.3	20.4	20.7	20.7	20.8	20.2	20.1	20.4	20.8	20.9
Federal Expenditures (NIPA) as % of GNP	23.0	23.2	22.9	22.8	22.7	22.8	22.8	22.7	23.7	23.0	22.9	22.7	22.5
Deficit(NIPA)	-157.5	-139.5	-121.7	-129.4	-124.3	-113.5	-111.4	-108.9	-157.8	-142.4	-128.7	-110.0	-99.2
as % of GNP	-3.2	-2.7	-2.3	-2.5	-2.3	-2.1	-2.0	-2.0	-3.5	-2.9	-2.5	-2.0	-1.7
REAL ESTATE MARKETS													
HOME SALES													
Total Single-family Home Sales (thousands, single-family resales plus 97 percent of single-family starts)	4877	4515	4319	4493	4431	4355	4439	4469	4648	4651	4439	4427	4487
Percent change -- year ago	9.7	-2.0	-7.5	-4.2	-9.1	-3.5	2.8	-0.5	-1.4	0.1	-4.5	-0.3	1.3
Existing Single-family Home Sales (thousands)	3773	3477	3320	3480	3435	3335	3415	3455	3526	3594	3428	3405	3455
Percent change -- year ago	11.3	5.4	-8.9	-5.0	-9.0	-4.1	2.9	-0.7	-1.1	1.9	-4.6	-0.7	1.5
Housing Starts (thousands)	1559	1517	1370	1423	1425	1458	1462	1447	1634	1496	1434	1458	1450
Percent change -- year ago	1.7	2.8	-7.4	-3.0	-8.6	-3.9	6.7	1.7	-9.8	-8.5	-4.1	1.7	-0.6
Single-Family Units	1138	1070	1030	1045	1027	1052	1056	1045	1157	1089	1043	1054	1064
Percent change -- year ago	4.5	-2.5	-3.0	-1.5	-9.8	-1.7	2.5	0.0	-2.2	-5.8	-4.3	1.1	0.9
Multi-Family Units	420	448	341	378	398	406	406	402	477	406	391	404	386
2-4 Family Units	65	59	45	50	53	54	54	53	66	59	52	54	51
Percent change -- year ago	16.0	5.3	-21.3	-12.1	-19.3	-9.3	19.3	6.2	-22.6	-10.3	-12.2	3.4	-4.5
5+ Family Units	355	388	295	328	345	352	353	349	412	347	339	351	335
Percent change -- year ago	-8.2	20.0	-18.2	-6.0	-2.8	-9.3	19.3	6.2	-24.4	-15.7	-2.3	3.4	-4.5
New Single-family Home Sales (thousands)	679	623	615	645	605	570	585	607	671	677	622	587	644
Percent change -- year ago	9.3	-1.1	-11.8	-8.3	-10.9	-8.5	-4.9	-5.9	-10.5	0.9	-8.1	-5.6	9.7
Mobile Homes Shipped (thousands)	223	217	221	200	199	206	210	211	233	217	209	211	237
HOME PRICES													
Existing Home Prices - Median $(1000)	88.7	91.2	93.3	95.2	96.0	96.6	98.0	99.3	85.6	89.3	93.9	98.8	104.1
Percent change -- year ago	4.4	3.9	4.9	5.5	8.2	5.9	5.0	4.3	6.6	4.3	5.2	5.2	5.4
New Home Prices - Median $(1000)	114.9	118.3	121.4	123.1	123.5	124.7	126.9	128.4	104.0	112.5	121.6	127.7	135.4
Percent change -- year ago	2.8	4.8	7.5	7.1	7.5	5.4	4.5	4.3	13.0	8.2	8.1	5.0	6.0
FINANCIAL MARKETS													
Long-Term Interest Rates													
30-year FRM (FHA Secondary)	10.6	10.9	10.2	9.9	10.1	10.3	10.3	10.5	10.2	10.5	10.3	10.1	10.1
1-year ARM (without buydown)	8.5	8.8	9.0	8.7	8.5	8.5	8.4	8.4	8.5	8.5	8.8	8.4	8.5
Corporate AAA Bond Rate	9.5	9.7	9.5	9.0	8.8	8.7	8.7	8.7	9.4	9.7	9.3	8.7	9.1
Government Bond Rate	9.0	9.0	8.7	8.3	8.8	9.0	8.8	8.6	8.6	9.0	8.7	8.7	8.3
Short-Term Interest Rates													
Federal Funds Rate	8.5	9.4	9.7	9.1	8.7	8.7	8.4	8.2	6.7	7.6	9.2	8.4	8.9
3-month T-Bill Rate	7.7	8.5	8.4	8.2	7.7	7.6	7.3	7.2	5.8	6.7	8.2	7.3	7.7
Prime Rate	10.2	11.0	11.4	11.0	10.5	10.4	10.0	9.9	8.2	9.3	11.0	10.1	10.7
Discount Rate	6.5	6.7	7.0	7.0	6.8	6.6	6.4	6.2	5.7	6.2	6.9	6.3	6.5
Value of the U.S. Dollar (Trade-Weighted Avg.)	93.0	96.0	100.4	100.0	98.0	95.5	93.9	92.0	96.9	92.8	99.3	92.7	86.8
Percent change	-17.6	13.5	19.7	-1.4	-7.9	-9.9	-6.2	-7.9	-13.6	-4.3	7.0	-6.6	-6.3

Source: Forecast produced using Laurence H. Meyer and Associates' model of the U.S. economy.
Assumptions and simulations by Dr. John Tuccillo, Dr Frederick Flick, Sean Burns and Beth Maerz.

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